

DUMME13.001APC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Ayre, et al	)	Group Art Unit Unknown
			)	
PCT Appl. No.:		PCT/AU00/00355	)	
			)	
Filed	:	Herewith	)	
			)	
For	:	A ROTARY BLOOD PUMP	)	
		AND CONTROL SYSTEM	)	
		THEREFOR	)	
			)	
Examiner	:	Unknown		

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Prior to examination, please amend the above referenced application as follows:

**IN THE ABSTRACT:**

Please insert the following abstract:

**--ABSTRACT OF THE DISCLOSURE**

A pump assembly and estimation and control system therefor, the pump adapted for continuous flow pumping of blood. In a particular form, the pump is a centrifugal pump wherein the impeller is entirely sealed within the pump housing and is exclusively hydrodynamically suspended therein against movement in three translational and two rotational degrees of freedom as the impeller rotates within the fluid urged by electromagnetic means external to the pump cavity. Hydrodynamic suspension is assisted by the impeller having deformities therein such as blades with surfaces tapered from the leading edges to the trailing edges of bottom and top surfaces thereof.--